

**MEDICAL PHYSIOLOGICAL SIMULATOR INCLUDING  
A CONDUCTIVE ELASTOMER LAYER**

**Abstract of the Disclosure**

Conductive elastomeric circuits are used in various simulated physiological  
5 structures such as tissues and organs, enabling feedback to be provided indicating  
whether a simulated task is being performed correctly. For example, a surgical  
trainer has a simulated human tissue structure made of an elastomeric composition, at  
least one reinforcing layer of a fibrous material, and at least one flexible electrical  
circuit. The surgical trainer preferably includes multiple areas for practicing surgical  
10 skills, each with evaluation circuits for providing feedback regarding that skill.  
Conductive elastomers are also incorporated into other types of medical training  
simulators, to similarly provide feedback. In another embodiment, a simulated organ  
has a conductive elastomeric circuit in the periphery of the simulated organ, enabling  
feedback to be provided to evaluate whether a person is properly manipulating the  
15 organ in response to a manual applied pressure.